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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,387	02/28/2002	Mikhail Dmitriev	P-7365	1283

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EXAMINER

NGUYEN, VAN H

ART UNIT	PAPER NUMBER
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2194

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,387

Applicant(s)

DMITRIEV, MIKHAIL

Examiner

VAN H. NGUYEN

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/15/02
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-32 are presented for examination.

Information Disclosure Statement

2. The Applicants' Information Disclosure Statement, filed October 15, 2002, has been received, entered into the record, and considered. See attached form PTG 1449.

Drawings

3. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figure. If the applicant does not comply with this requirement, by the examiner, the applicant will be notified and informed of this requirement in the next Office action. The objection to the drawings will not be withdrawn if the applicant does not comply with this requirement.

Claim Rejections - 35 U

4. 35 U S C 101 reads as follows

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. The language of claims 1-13 raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a useful, concrete, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

6. Claims 1-13 are rejected under 35 U.S.C. 101 because the claimed invention, appearing to be comprised of software alone without claiming associated computer hardware required for execution, is not supported by either a specific and substantial asserted utility (i.e., transformation of data) or a well established utility (i.e., a practical application).

Double Patenting

7. Obviousness-type double patenting rejection

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. CIT. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Uogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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8. A timely filed terminal disclaimer in compliance with 37 C.F.R. ' 1.321(b) would overcome an actual or provisional rejection on this ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 C.F.R. ' 1.78(d).

9. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 7 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending application 10/159,919 filed May 31, 2002.

11. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both claiming: recursively scanning through application code beginning at an application entrypoint to determine which methods may be called and the classes to which they correspond; and storing identifiers corresponding to said methods which may be called in a method usage map organized by classes;

12. As to the remaining claims 1-6 and 8-31, they are also rejected under obvious type double patenting as stated in claim 7 above.

13. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. Claims 7-16, 23-28, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by **Kramskoy et al.** (US 6,901,587).

16. As to claim 16, Kramskoy teaches the invention as claimed including apparatus for loading methods into a virtual machine, the methods contained in one or more classes (col.50, lines 62-67), the apparatus including:

a database (figs. A1-3);

a method usage map consuler coupled to said database (col.78, lines 18-56); and

a virtual machine selective loader coupled to the method usage map consuler (col.61, lines 27-41 and col.65, lines 37-42).

17. As to claim 7, Kramskoy teaches the invention as claimed including a method for generating a method usage map for use in loading methods into a virtual machine, the methods contained in one or more classes (col.50, lines 62-67), the method including:

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recursively scanning through application code beginning at an application entrypoint to determine which methods may be called and the classes to which they correspond (col.61, lines 27-48; col.65, line 37-col66, line 3); and

storing identifiers corresponding to said methods which may be called in a method usage map organized by classes (col.81, lines 36-col.82, line 65).

18. As to claim 8, Kramskoy teaches finding all methods referenced in said application code; and finding all methods referenced in methods referenced in said application code (col.50, line 62-col.51, line 19).

19. As to claim 9, Kramskoy teaches storing said method usage map in a file located in a database (figs. A1-3 and A1-4).

20. As to claim 10, Kramskoy teaches each of the classes is stored in the database (figs. A1-3 and A1-4).

21. As to claim 11, Kramskoy teaches statically determining which methods of the classes may actually be used by the application (col.61, lines 36-41).

22. As to claim 12, Kramskoy teaches handling method polymorphism (col.37, lines 15-21).

23. As to claims 23-28, note the rejection of claims 7-12 above. Claims 23-28 are the same as claims 7-12, except claims 23-28 are apparatus claims and claims 7-12 are method claims.

24. As to claim 31, note the rejection of claim 7 above. Claim 31 is the same as claim 7, except claim 31 is a program storage device claim and claim 7 is a method claim.

25. As to claim 13, Kramskoy teaches the invention as claimed including method for loading methods into a virtual machine, the methods contained in one or more classes (col.50, lines 62-67), the method including:

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consulting said method usage map stored in a database upon execution of the virtual machine (col.78, lines 18-56); and

selectively loading identifiers corresponding to only those methods contained in said method usage map into memory in the virtual machine (col.81, lines 27-51).

26. As to claim 15, the rejection of claim 7 above is incorporated herein in full. Additionally, Kramskoy further teaches a secondary storage; and a method usage map storer coupled to said method usage map generator and to said secondary storage (see fig.1E and the associated text).

27. As to claim 14, the rejections of claims 7 and 15 above are incorporated herein in full. Additionally, Kramskoy further teaches a virtual machine selective method loader coupled to the method usage map consuler (col.61, lines 27-41 and col.65, lines 37-42).

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 1-6, 17-22, 29, 30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kramskoy et al.** in view of **Beadle et al.** (US 6,842,897).

30. As to claim 29, the rejection of claim 13 above is incorporated herein in full. Kramskoy, however, does not specifically teach “selectively loading.”

Beadle teaches selectively loading (col.5, line 51-col.6, line 17).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Beadle with Kramskoy because Beadle’s teachings would have improved performance and reduced memory footprint.

31. As to claim 32, note the discussion of claim 29 above. Claim 32 is the same as claim 29, except claim 32 is a program storage device claim and claim 29 is an apparatus claim.

32. As to claim 1, the rejections of claim 7 above is incorporated herein in full.

Additionally, Kramskoy further teaches consulting said method usage map upon execution of the virtual machine (col.78, lines 18-56). Refer to discussion of claim 29 above for rejection of “selectively loading only those methods contained in said method usage map into memory in the virtual machine.”

33. As to claims 2-6, refer to claims 8-12 above.

34. As to claim 17, refer to discussion of claim 1 above for rejection.

35. As to claims 18-22, refer to claims 8-12 above.

36. As to claim 30, refer to discussion of claim 1 above for rejection.

Conclusion

37. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kubik et al. (US 6611915) teaches "Selective loading of client operating system in a computer network."

Czajkowski (US 6567974) teaches "Small memory footprint system and method for separating applications within a single virtual machine."

Hou et al. "Distributed and parallel execution of Java programs on a DSM system", 2001 IEEE, pp.555-559.

38. Any inquiry or a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.

40. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Meng-Ai An can be reached on (571) 272-3756.

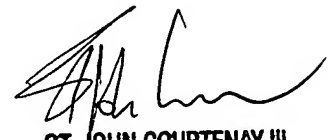
41. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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42. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
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vhn



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